Technologies for implementing the Project application

Deployment options for the project include:

* A Web application embedded in a website.
* A stand-alone application packaged on a CD/DVD.

Speed

The web offers an extremely easy and convenient way for the target users to access the application as most places around the world have access to some sort of internet connection. Because of this, people from as far away as the U.S.A. or Africa would be able to use the application. The down side with the internet is that there are still a lot of areas that have slow or no internet and in New Zealand the people in these areas are highly likely to be rural farmers. Because of this a compromise would need to be made concerning the amount of information being passed to and from the user.

A stand-alone application would need to be written on to a CD/DVD and exported to the user for them to be able to use it. A system would need to be set up to manage the production and distribution of these CD/DVD’s to any user that wanted to use the application.

Graphic Capabilities

The graphical load allowed by the internet is much lower than what could be implemented in a stand-alone application. This comes down to the fact that the amount of information complex 3D models and environments need to use for calculating and rendering polygons could get to be quite large depending on how many objects would need to be displayed at any given time. This would in turn slow the user’s internet connection to a stand-still. Because of this the graphical output of a web application would have to either be very basic 3D models or head into the realm of 2D drawings. 2D drawings would not offer the type of interaction that 3D representations would. 2D would allow the user to move around in a bird’s eye view type fashion but they would always be looking down on the simulation. 3D would allow the user to not only have the bird’s eye view but they could also change the position of the camera so that they could be looking at the farm from any angle in the 3D space.

Because there is no need to be transferring information between machines, as is the case with internet, the only graphical limitations for a stand-alone application would be the users’ computer hardware. As most people might not be running high performance graphics cards we may need to limit the intensity of the 3D models to cater for this.

Hosting

There would need to be an already made website to host the completed application. Or, we would also need to be constructing a website in which to host the application along with building the application. Building a website may be out of scope for this project, it would be much better to have an already running client run website for which to embed the application.